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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/720,488	03/05/2001	Akiho Ota	108259	2376

7590 05/22/2002

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EXAMINER	
EGAN, BRIAN P	
ART UNIT	**PAPER NUMBER**
1772	9

DATE MAILED: 05/22/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

MK-9

Office Action Summary	Application No.	Applicant(s)	
	09/720,488	OTA ET AL.	
	Examiner	Art Unit	
	Brian P. Egan	1772	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____ .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 1-11 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) 1-11 is/are rejected.

7)☒ Claim(s) 3 and 6 is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Specification

1. 35 U.S.C. 112, first paragraph, requires the specification to be written in "full, clear, concise, and exact terms." The specification is replete with terms which are not clear, concise and exact. The specification should be revised carefully in order to comply with 35 U.S.C. 112, first paragraph. Examples of some unclear, inexact or verbose terms used in the specification are: "a less danger of breakage," on page 1, line 3 (under background art) – "a" should be deleted. Also, references to "biaxial drawing" should be changed to "biaxially drawn." Overall, the specification appears to be a literal translation from Japanese and the Examiner suggests further proofreading so as to provide a specification with full, clear, concise, and exact terms. Appropriate correction is required.

Claim Objections

2. Claims 3 and 6 are objected to for the use of the term, "biaxial drawing." Examiner suggests replacing "biaxial drawing" with "biaxially drawn" to facilitate clarity. Proper clarification and/or correction are required.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 5 and 9-11 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. "A cylindrical body constituting a trunk portion of a tube container" was not adequately described in the specification and it is unclear how the applicant intends a cylindrical body constituting a trunk portion of a tube container to be defined. The cylindrical body constituting a trunk portion of a tube container has been defined in its broadest possible sense for examination purposes. Proper clarification and/or correction are required.

5. Claims 3-4 and 10-11 are rejected under 35 U.S.C. 112, second paragraph, for failing to particularly point out and distinctly claim the subject matter which the applicant regards as his invention. Claims 10-11 are dependent upon claims 3-4, respectively, wherein claims 3-4 state that the laminated plastic molded body is a plastic *container* while claims 10-11 states that the laminated plastic molded body is only a *trunk portion of a tube container*. It is unclear how the laminated plastic molded body can be both a container and a portion of a container at the same time. Proper clarification and/or correction are required.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 1, 3-4, and 8 are rejected under U.S.C. 102(b) as being clearly anticipated by JP 07-266517 (assigned to Toppan Printing Co., Ltd.).

JP '517 discloses a laminated plastic molded body being a three-layered or five-layered (Configurations of A/B/A, A/C/B/C/A, A/B/D/B/A, A/E/B/E/A, etc.; see pages 5-6) laminated plastic molded body in which a resin layer A and a resin layer B are laminated alternately (see pages 5-6), and the resin layer A is a polyethylene terephthalate resin layer (p. 10, lines 37-39) and the resin layer B interposed between the resin layer A is a polyolefin resin layer having a cyclic olefin component ("annular olefin"; p.10, lines 39-40). The total weight of the polyolefin resin layer having the cyclic olefin component (resin layer B) is 5-60% by weight (p. 1, lines 40-42). The plastic molded body is a plastic container comprising a hollow biaxially drawn blow molded body (p.3, lines 26-29; p.11, line 9).

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

9. Claims 1-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP-06-285960 (assigned to Yamato Esuron K.K.) in view of JP-07-080919 (assigned to Toppan Printing Co., ltd.), Taniguchi et al. (#4,778,842), and Hahn (#4,496,408).

JP '960 teaches a laminated plastic molded body being a three-layered laminated plastic molded body (p.1, lines 11-12) in which a resin layer A and a resin layer B are laminated alternately, and the resin layer A is a polyethylene terephthalate resin layer ("thermoplastic polyester layer, PET"; p. 1, lines 36-37), and the resin layer B interposed between the resin layers A is a polyolefin resin (p.4, lines 15-19). The laminated plastic molded body is a hollow

blow molded body wherein the hollow blow molded body is a cylindrical body further constituting a trunk portion of a tube container (p. 1, lines 24-26; p. 2, lines 17-20 (with respect to the limitation of being "hollow"); p.11, Drawing 1).

JP '960 fails to teach that the multi-layer body is biaxially drawn and also fails to teach the use of a cyclic polyolefin and the percent compositions of resin layers A and B.

JP '919 teaches a blow-molded container using 5-60 mol% cyclic polyolefin. JP '919 uses cyclic olefin for the purpose of providing the article with excellent transparency, steam barrier nature, thermal resistance, and rigidity (p. 6, lines 15-16). It would have been obvious through routine experimentation to one of ordinary skill in the art at the time applicant's invention was made to have used a cyclic polyolefin in making a container for the purpose of providing an article with excellent transparency, steam barrier nature, thermal resistance, and rigidity as taught by JP '919.

Therefore, it would have been obvious to one of ordinary skill in the art at the time applicant's invention was made to have modified JP '960 by using a cyclic polyolefin in the range of 5-60 mol% for the central polyolefin layer of the multilayered container as taught by JP '919 in order to attain excellent transparency, steam barrier nature, thermal resistance, and rigidity.

Taniguchi et al. teach a polyester resin composition that is used in plastics (Col. 1, lines 16-17) wherein the resin contains 40-80 parts by weight of polyethylene terephthalate type polyester, 20-60 parts by weight of a poly(1,4-butylene terephthalate) type polyester, and a metal salt of a copolymer (see Abstract). Taniguchi et al. teach the aforementioned composition for the purpose of providing a polyester resin composition exhibiting excellent impact resistance and

moldability (see Abstract). It would have been obvious through routine experimentation to one of ordinary skill in the art at the time applicant's invention was made to have used a polyester resin with 40-80 parts by weight of polyethylene terephthalate type polyester, 20-60 parts by weight of a poly(1,4-butylene terephthalate) type polyester, and a metal salt of a copolymer for the purpose of providing a polyester resin composition exhibiting excellent impact resistance and moldability for a plastic container as taught by Taniguchi et al.

Therefore, it would have been obvious to one of ordinary skill in the art at the time applicant's invention was made to have modified JP '960 by using a polyester resin composition as taught by Taniguchi et al. in order to provide a polyester resin composition exhibiting excellent impact resistance and moldability for a plastic container.

Finally, Hahn teaches a method for producing biaxially oriented hollow containers (see Abstract; Figs. 8-9). Hahn teaches that the method can be used for polyesters including polyethylene terephthalate as well as polyolefins (Col. 4, line 55 to Col. 5, line 2). Hahn biaxially orients the molded layers of the hollow article for the purpose of enhancing the strength properties of the container (Col. 1, lines 13-25). It would have been obvious through routine experimentation to one of ordinary skill in the art at the time applicant's invention was made to have biaxially oriented the plastic layers of a container wall for the purpose of enhancing the strength properties of the container as taught by Hahn.

Therefore, it would have been obvious to one of ordinary skill in the art at the time applicant's invention was made to have modified JP '960 by biaxially orienting the layers of the laminated plastic body of the container as taught by Hahn for the purpose of enhancing the strength properties of the container.

10. Claims 2, 5-7, and 9-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 07-266517 (assigned to Toppan Printing Co., ltd.) in view of Taniguchi et al. (#4,778,842) and Hahn (#4,496,408).

The teachings of JP '517 are relied upon as detailed above. JP '517 fails to teach the composition of the polyethylene terephtalate layer. JP '517 is also silent as to whether the laminated plastic molded body is cylindrical.

Tamiguchi et al. teach a polyester resin composition that is used in plastics (Col. 1, lines 16-17) wherein the resin contains 40-80 parts by weight of polyethylene terephthalate type polyester, 20-60 parts by weight of a poly(1,4-butylene terephthalate) type polyester, and a metal salt of a copolymer (see Abstract). Taniguchi et al. teach the aforementioned composition for the purpose of providing a polyester resin composition exhibiting excellent impact resistance and moldability (see Abstract). It would have been obvious through routine experimentation to one of ordinary skill in the art at the time applicant's invention was made to have used a polyester resin with 40-80 parts by weight of polyethylene terephthalate type polyester, 20-60 parts by weight of a poly(1,4-butylene terephthalate) type polyester, and a metal salt of a copolymer for the purpose of providing a polyester resin composition exhibiting excellent impact resistance and moldability for a plastic container as taught by Taniguchi et al.

Therefore, it would have been obvious to one of ordinary skill in the art at the time applicant's invention was made to have modified JP '517 by using a polyester resin composition as taught by Taniguchi et al. in order to provide a polyester resin composition exhibiting excellent impact resistance and moldability for a plastic container.

Although JP '517 is silent as to whether the laminated plastic molded body is cylindrical, it is notoriously well known in the art that molded containers are commonly molded into cylindrical containers. Furthermore, Hahn teaches a method for producing biaxially oriented hollow containers (see Abstract; Figs. 8-9). Hahn teaches that the method can be used for polyesters including polyethylene terephthalate as well as polyolefins (Col. 4, line 55 to Col. 5, line 2). Hahn biaxially orients the molded layers of the hollow article for the purpose of enhancing the strength properties of the container (Col. 1, lines 13-25). The final product as taught by Hahn is a cylindrical molded container (Figs. 8-9). It would have been obvious through routine experimentation to one of ordinary skill in the art at the time applicant's invention was made to have biaxially oriented the plastic layers of a container wall and molded the plastic layers into a cylindrical container for the purpose of enhancing the strength properties of the container as taught by Hahn.

Therefore, it would have been obvious to one of ordinary skill in the art at the time applicant's invention was made to have modified JP '517 by biaxially orienting the layers of the laminated plastic body of the container and molding the layers into a cylindrical container as taught by Hahn for the purpose of enhancing the strength properties of the container.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian P. Egan whose telephone number is 703-305-3144. The examiner can normally be reached on M-F, 8:30-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Harold Y. Pyon can be reached on 703-308-4251. The fax phone numbers for the

organization where this application or proceeding is assigned are 703-872-9310 for regular communications and 703-872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.

BPE
May 17, 2002

William P. Watkins III

WILLIAM P. WATKINS III
PRIMARY EXAMINER